PSG 89, an unidentified species of Necrosciinae.

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Key words
Phasmatodea, Necrosciinae, Rearing, Breeding.

Culture history

This species was collected together with PSG 90, *Parahyrtacus gorkomi* Hausleithner, by Eric and Johan van Gorkom on Mindoro Island in the Philippines in August 1985. Both species are very common in the Puerto Galera area, but neither was found further to the south of the island. A report on rearing this species appeared in the *PSG Newsletter* in 1990 (Herbert, 1990).

Classification

This species is still unidentified, but by comparison with some dead specimens of other similar species in my collection, I found out that it is closely related to PSG 143 and *Sipyloidea meneptolemus* (Westwood) from Singapore; I collected two other very similar species at Tana Toraja, Sulawesi earlier this year. It is however certain that it belongs in the subfamily Necrosciinae.

Adults (Figs. 1 & 3)
This is a small, thin species, having well developed wings in both sexes and is a very good flyer.

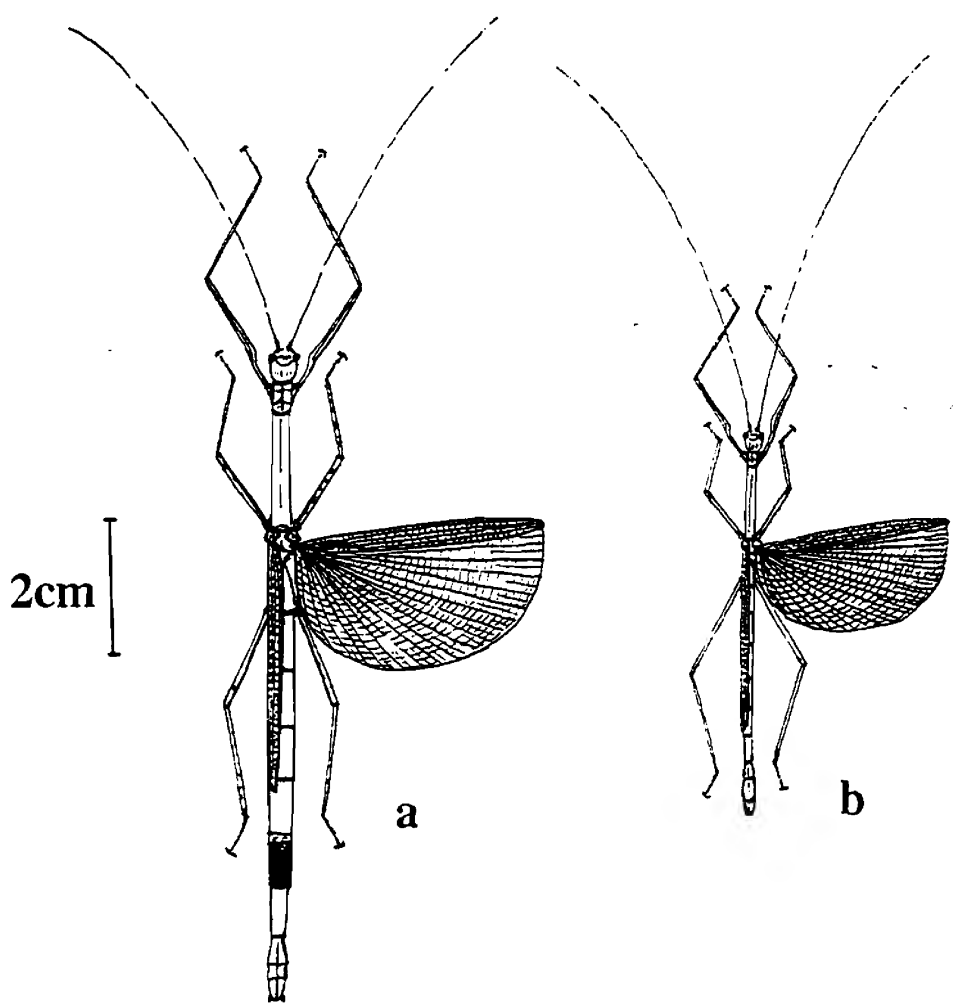

Figure 1 Adults: a) female, b) male.

The female reaches a body length of 65-75mm and an overall length of about 95mm. The antennae are long (40mm), thin and coloured black. The head is quite big, very slightly elongated and possesses and heart-shaped orange patch between the eyes. The pronotum is smoother than the head and about twice as long as wide. The mesonotum is very elongated and not covered by any spines or tubercles. The metanotum is also twice as long as wide and possesses a well developed pair of wings, spanning about 80-85mm. The elytra however are very small, being only 2mm long and not covering the base of the wings

as they do in most winged species of this subfamily. The abdomen can reach a thickness of 2.5-3mm when in full egg production. The operculum is quite short and does not reach to the end of the abdomen. The legs are all relatively short, thin and spineless. The main coloration is a mid brown with many small lighter and darker spots and patches. However, the fifth abdominal segment is coloured dark brown to black. The wings are coloured translucent greyish-brown.

The males are much smaller and thinner, reaching only body lengths of 48-52mm (75mm overall) and a maximum body width of about 2mm. The coloration is also very similar but there is no big black patch on the fifth abdominal segment. However, there is a black stripe running along the pronotum and mesonotum. The wings reach the end of the fifth abdominal segment and span some 75mm.

Eggs (Fig. 2)
These are very small, being only 1.8mm long, 1.4mm high and 1.2mm wide. The whole egg is covered by a net like structure and amongst the newly laid eggs, two colour forms can be seen; some are greyish brown and others are light grey. However, the first form seems to be much more common with a ratio of 5:1. The operculum is round, more or less flat. The micropylar plate is very elongated and reaches from the operculum to the polar end of the egg, where a dark patch can be seen. It is pointed at the ends and thicker in the middle, where the micropylar cup is situated.

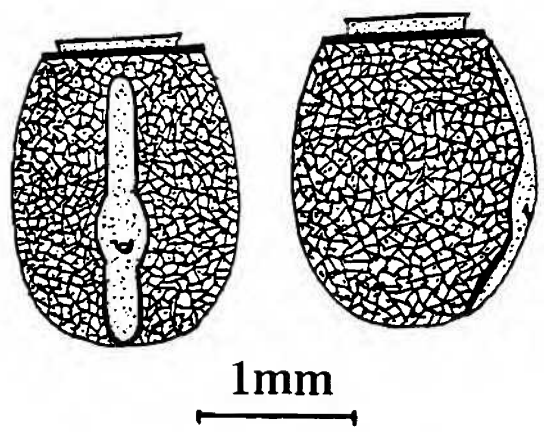

Figure 2 Dorsal and lateral views of egg.

The females are quite prolific egg layers and can lay up to ten per 24 hours. They are simply dropped to the floor and hatch after 2-3 months depending to the temperature. Hatching rate is very high at about 85%.

Nymphs
The nymphs are about 8mm in body length when newly hatched and have very long legs and antennae, looking very fragile. The colouring is dark yellow. Later the nymphs change to a green colour and they can be sexed from third instar onwards, by the males having a dot on the end of their abdomens.

The mortality in the first instar is not as high, as one may it expect to be, within my culture it is about 20%. All the nymphs, which survive first instar will become adult.

Defence
As already said, these insects are very good flyers and will fly off readily when disturbed, especially the males which are much thinner and not as heavy as egg laying females. When held between the fingers, females will make fast movements with their abdomens and there will be a yellowish liquid coming out of their mouths. This latter reaction is mainly shown by the nymphs, when not running away very quickly. However, when handling them, care must be taken, as they tend to lose legs easily.

It is also interesting to see that when you just leave the adults to crawl on your hand, they will soon

slow down and sit tightly onto one finger, with the legs outstretched.

Foodplants

This species feeds readily on bramble (*Rubus* spp.), rose (*Rosa* spp.), pyracantha (*Pyracantha* sp.) and privet (*Ligustrum* sp.). Nothing else has been tried so far.

Rearing

This is an easy and very productive species, which does not require a lot of room for a culture. It prefers high temperatures (24-28°C) and high humidity of at least 70%. Care should be taken of too low humidity and too much air circulation, as they will then get problems with skin sheddings, especially with their final skin sheds. As already said, they are not very easy to handle, as they move very fast and loose legs easily.

I have seen that this species is not widely cultured in England which I can not really understand as it is a real pest. However, I have now given hundreds of eggs to several members and the livestock coordinator and hope that it will be more widely cultured in the future.

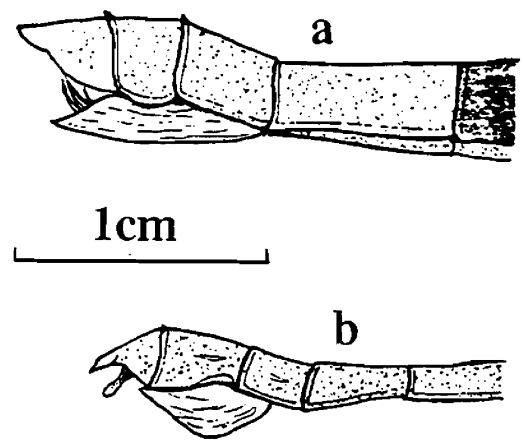

Figure 3 Abdomen: a) female, b) male.

Reference

Herbert, M. (1990) PSG No. 89. *Phasmid Study Group Newsletter*, **42**: 17-18.